LA-UR-11-12075
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Title:	2011 Radioactive Waste Management Basis for Chemistry and Metallurgy Research (CMR) Building
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Intended for:	DOE RWMB Waste management Reading Room DOE

Los Alamos
NATIONAL LABORATORY
EST. 1943

Waste and Environmental Services Division
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Date: November 20, 2011
Refer To: WES-DO-11-0019

Mr. George J. Rael, Field Element Manager
Nuclear National Security Administration
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Los Alamos, New Mexico 87544

2011 Radioactive Waste Management Basis for Chemistry and Metallurgy Research (CMR) Building

The Waste Certification Program (WCP) has reviewed the CMR-FOD Radioactive Waste Management Basis (RWMB) submittal for TA-3 Building 29. The facility has requested RWMB approval for a two-year timeframe. WCP concurs with the waste generation and operation information provided. The CMR-FOD has reported a significant decrease of waste in storage for greater than one year. WES-WGS will continue to support the waste management activities and focus on the decrease of legacy issue at the facility. Operations planned during the period are routine; however, if non-routine operations are identified during the two-year period, a revision will be submitted. The referenced safety and facility documents can be obtained through the Waste Certification Program office.

Sincerely,

Alison Dorries
Division Leader
Waste and Environmental Services
AD:rjm

Enc: Radioactive Waste Management Basis CMR 2011-07, Rev 0
Distribution:
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Alison Dorries, WES-DO, K491
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IRM-RMMSO, A150

Form 2107

Los Alamos NATIONAL LABORATORY EST.1943

Radioactive Waste Management Basis Report Form

☒ Extension Requested (Detailed letter must be attached.)

CMR, 2011-09 Rev. #0

Reporting Organization	Report Date	Facility Hazard:
WES-WGS	9/6/2011	☒ High ☐ Moderate ☐ Low

Purpose

The purpose of this report form is to document the radioactive activities at Technical Area(s) 03, Bldg 29, which are operated by the CMR-FOD organization at Los Alamos National Laboratory (LANL or the Laboratory). This Radioactive Waste Management Basis (RWMB) Report Form constitutes compliance with the applicable requirements of Department of Energy (DOE) Order 435.1, *Radioactive Waste Management*, and in DOE Manual 435.1, Chapter IV, *Low-Level Waste Requirements*, and Chapter III, *Transuranic Waste Requirements*. The organization must submit an RWMB Report Form to the Waste and Environmental Services-Waste Generator Services Group (WES-WGS), Waste Certification Program (WCP) by July 30 upon expiration or when a significant waste stream change has occurred. WCP must compile the LANL Organization RWMB Reports and submit this package for DOE reporting before August 30 in order to maintain approval.

Time Requested for RWMB Approval 2 year(s)

Report Authorization

	Name	Signature	Date
Facility Operations Director (FOD)/Division Leader:	Paul Sasa		9/6/11
Report Preparer:	Joe Rodriguez		9/6/11
Waste Certification Specialist:	~~Michelle Coriz~~ Randy J. Martinez		10/13/11

Waste Certification Program (WCP) Annual Review

	Name	Signature	Date
Waste Certification Specialist:			

Waste Authorization Basis

List all facility/operations authorization basis documents and include specific facility waste management documents.

☒ Nuclear-Facility ☐ Non-Nuclear Facility ☐ TSDF ☐ Accelerator ☒ An attached list is provided

Safety or Facility Document Name	Document Number	Last Rev. Date	Document Owner
☐ Waste Management Plan			
☐ Facility Waste Certification Plan (FWCP). *Do not complete pg. 3*			
☐ Operation Record			
☐ Documented Safety Analysis (DSA)			
☐ Technical Safety Requirement (TSR)			
☐ Safety Evaluation Report (SER)			
☐ Health & Safety Plan/Job Hazard Analysis			
☐ Site Treatment Plan			
☐ DOE O 435.1 Exemption for Disposal at a Non-DOE Facility			
☐ Closure Plan			
☐ Monitoring			
☐			
☐			

Institutional Document	Document Number	Institutional Document	Document Number
☒ Waste Management	P409	☒ LANL Waste Acceptance Criteria	P930-1
☒ Radioactive Waste Certification Program	P930-2	☐ Off-Site Shipment of Chemical, Hazardous, or Radioactive Waste	P930-3
☒ NMED LANL Hazardous Waste Facility Permit	NM0890010515-1	☒ LANL Packaging and Transportation Program Procedure	P151-1
☒ Environmental Management System	SD400	☒ National Environmental Policy Act (NEPA)	42 U.S.C. 4321

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Waste and Activity by Building and Destination

For any building/location managing radiological materials, enter the TA-Bldg No, (e.g., 55-0078 or 55-outside) then click on waste activity and destination box and select the appropriate descriptors for the management activity type (see key below) and waste destination. Identify total organization estimated annual volume above destination box.

TA-Bldg. No.	LLW Activity	Estimated Annual Volume 200 cubic M Destination	Waste Matrix	MLLW Activity	Estimated Annual Volume 2.0 cubic M Destination	Waste Matrix	TRU Activity	Estimated Annual Volume 8.0 Cubic M Destination	Waste Matrix	Mixed TRU Activity	Estimated Annual Volume 2.0 Cubic M Destination	Waste Matrix
03-29	All	On-site Disposal	Solid	SS	Off-site Disposal	Solid	All	WIPP	Solid	SR	WIPP	Solid
Comment: TRU liquids generated within CMR are returned to TA-55 for cementation or solidified on site and disposed of as solid debris.												
03-29	All	TA-50 RLWTF	Liquid	None	N/A	N/A	None	N/A	N/A	None	N/A	N/A
Comment:												
	None	N/A	N/A	None	N/A	N/A	None	N/A	N/A	None	N/A	N/A
Comment:												
	None	N/A	N/A	None	N/A	N/A	None	N/A	N/A	None	N/A	N/A
Comment:												
	None	N/A	N/A	None	N/A	N/A	None	N/A	N/A	None	N/A	N/A
Comment:												
	None	N/A	N/A	None	N/A	N/A	None	N/A	N/A	None	N/A	N/A
Comment:												
	None	N/A	N/A	None	N/A	N/A	None	N/A	N/A	None	N/A	N/A
Comment:												
	None	N/A	N/A	None	N/A	N/A	None	N/A	N/A	None	N/A	N/A
Comment:												
	All	N/A	N/A	None	N/A	N/A	None	N/A	N/A	None	N/A	N/A
Comment:												
	None	N/A	N/A	None	N/A	N/A	None	N/A	N/A	None	N/A	N/A
Comment:												
	None	N/A	N/A	None	N/A	N/A	None	N/A	N/A	None	N/A	N/A
Comment:												

Activity: Recyc = Recycling. Stage = Staging. Store = Storage. SS = Stage & Store. Treat = Waste Treatment. SR = Stage & Repack. All = All Activities.

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Radioactive Waste Management Basis Report Form (Page 3)

DOE O/M 435.1 Facility/Organization Specific Summaries	CMR 2011/AUG Rev 0

Facility Scope

Provide a brief description of organization activities and operations including waste generation, management, tracking, reporting, and preliminary disposal characterization.

Constructed in 1952, the 550,000 square foot CMR Facility primary purpose was to house research and experimental activities for analytical chemistry, plutonium, and uranium chemistry and metallurgy. The CMR Facility is managed by a Facility Operations Division under the direction of the Associate Director for Nuclear and High Hazard Operations. The owning Responsible Associate Director is the Associate Director for Chemistry, Life, and Earth Sciences, which has C-AAC and C-IIAC tenants.

It's comprised of six laboratory wings and an administrative wing, with hot cells in Wing 9 to provide heavy shielding and remote-handling capabilities for work on highly radioactive materials. The hot cells were used in the Rover Project and supported the postmortem examination of irradiated fuels for breeder reactors. The CMR Facility's mission continues to be analytical chemistry conducted in support of the Pit Manufacturing and Surveillance programs for LANL and the nation's nuclear weapons program. The facility's hot cells are considered critical to future material disposition and Global Nuclear Energy Programs (GNEP). The Closed Vessel Disposition (CVD) Project is CMR's newest mission for 2012.

While the CMR Facility has exceeded its intended lifetime, upgrades began in 1992 to address specific safety, reliability, and safeguards issues that were designed to extend the life of the facility by 20-30 years. In 1999, the CMR Upgrades Project was re-scoped to accommodate only those upgrades necessary to extend the life of the facility to 2010. Additional upgrades and a revised safety basis were evaluated and a new documented safety analysis was written to extend the life of the facility until the new CMR Replacement (CMRR) Facility is constructed and becomes operational in 2016. A risk-reduction effort is also under way in the CMR facility in several wings. This has created various Facilities and Infrastructure Recapitalization Program (FIRP) projects, such as "HEPA Replacement", "CMR Roof Replacement" and the "Fan Replacement". D&D activities also are being performed in parallel with the FIRP projects in wings 2, 3 and 4. These activities require waste support to approximately 300 LANS U.S. Department of Energy, contractor, and union craft employees. Wings 5 and 7 waste streams are primarily TRU/TRU-mixed; where as Wings 2, 3 and 9 are primarily LLW/LLW-mixed. CMR's largest waste stream is LLW due to projects like Hazard Reduction, CVD and FIRP.

Characterized LLW/LLW-mixed is approved for TA-54, but can also be shipped to NNSS for disposal. Characterized TRU/TRU-mixed has an established disposal pathway to WIPP.

Life-Cycle Waste Management

Describe the waste management process at the organization, security of waste funding, and the cradle to grave management. Specify how applicable procedures address waste management and controls. Utilize Environmental Management System (EMS) support.

Response:

Waste management processes at CMR are described in facility specific document CMR-RD-007, which provides guidance to waste generators and support staff on Laboratory and DOE requirements for management and disposition of various waste types. CMR operations, including waste management, are projected by the facility's POD, which authorizes and releases work on a daily/weekly basis. CMR also has a "New Activity Approval" process which will approve or deny the new process depending on the project's waste stream(s), controls, hazards and funding.

Approved radioactive aqueous liquid wastes are discharged to the Radioactive Liquid Waste Treatment Facility at TA-50 for treatment: industrial liquid waste (ph3 to 12, < 5.0 x 10 -7 Ci./L). Other TRU liquids may be returned to TA-55 for cementation or solidified on site and disposed of as solid TRU or TRU. CMR DOES NOT use the liquid waste lines to dispose of chemicals, oils, organics, or any other non-approved liquids.

Compactable (i.e. room trash cellulosic (paper, plastic, rubber, cardboard)-LLW is disposed of at NNSS and TRU/TRU-mixed is disposed of at WIPP.

Non-compactable waste (non RCRA- metal, lumber, glass, and absorbed liquids)-LLW is disposed of at TA-54 or NNSS and TRU/TRU-mixed is disposed of at WIPP.

LLW-mixed (chemical, solder joints, circuit boards and absorbed liquids) is disposed of at TA-54 or NNSS

Waste is stored in registered waste areas (SAAs, < 90-days, TSDF's, Radiological Staging/Storage, etc)

Characterization

Provide a description of how the organization implements the radioactive waste characterization process at the organization and the document support. Detail the routine method of waste characterization for the organization.

Response:

Waste generator completes a WPF, on Waste Compliance and Tracking System (WCATS), with waste characterization documentation including Acceptable Knowledge (AK) documentation(procedure, MSDS, logbook entry, etc) for all waste streams to ensure compliance with TSDF WAC requirements for any waste stream.

TRU waste streams are documented with WPF's, HPRMS tags (RP-1), WODF's, Discardable Waste Log sheets (DWL sheets) and NDA measurements(MC&A) which will be entered into WCATS. TRU waste streams are performed according to the procedures of the generating group(s), Central Characterization Project (CCP), and the WIPP Hazardous Waste Facility Permit, Attachment B, Waste Analysis Plan (WIPP WAP)

LLW waste streams are documented with WPF's, HPRMS tags (RP-1), WAF's, Chemical Waste Disposal Request (CWDR) and NDA measurements(MC&A) and currently entered into SWOOSH, but will be added to WCATS in FY12.

Packaging and Transportation

Specify organization-specific procedures for packaging operations and preparations for transportation. Laboratory personnel are required to meet the requirements of P151-1, *LANL Packaging and Transportation Program Procedure*, to ensure compliance with Department of Transportation (DOT) requirements. Identify the controls that will be implemented to prevent contents from being added to waste containers or tampered with while in a registered waste area.

Response:

WES-WGS personnel ensure that the waste conforms to the WODF or WAF descriptions (e.g. matrix, amount, and waste type). From the time of waste certification until shipment from CMR the waste containers are locked and controlled to assure that the contents are not altered.

In accordance with facility waste services' procedures, waste, material control, accountability, safeguards, and security, radioactive wastes are managed under the "two-person rule" in secured containers or storage areas. These wastes are managed staged and shipped to meet Laboratory, DOE, State, Federal, DOT and LANL transportation requirements.

Radioactive waste shipments are coordinated by CMR-Ops transportation personnel in accordance to Shipping Radioactive Waste CMR-AP-023, which implements the requirements of LANL's Packaging and Transportation TSD.

Staging/Storage

Describe the accumulation and holding of radioactive waste that is treated, or transported to or from the organization. Describe the organization's generation process and management trail into a registered waste area.

Response:

Operations-specific procedures and the applicable work instructions describe waste stream controls to ensure that solid waste is not altered after characterization is complete and/or prohibited items are ioon the container. The WAF provides evidence that waste stream controls are being implemented.

Operations-specific procedures and the applicable work instructions require that waste storage areas be established and posted in accordance with the ENV-RCRA guidance provided in Hazardous and Mixed Waste Requirements for Generators. CMR's WMC performs weekly assessments to monitor compliance with this guidance as well as quarterly assessments that are conducted by ENV-RCRA.

Mixed waste must also comply with P930-2 with posting and inspection requirements for LLW and TRU radiological waste. WMC performs weekly assessments to monitor compliance with this guidance as well as bi-yearly assessments that are conducted by WCP.

Waste generators submit their waste over to WES-WGS personnel who characterize, package, document, manage storage areas, and arrange the dispositon. Waste is stored in registered storage areas, while awaiting sampling or verification, documentation, packaging and/or dispositioning.

Quality Assurance Program

Describe the organization-specific procedures that ensure the traceability of waste characterization records, container procurement, and the document control process.

Response:

The CMR Quality Management Plan (NMT-PLAN-001) describes the quality assurance (QA) program that is implemented at CMR. This program includes administrative controls to ensure adequate implementation.

Performance Assurance (CMR-PLAN-013) describes the procedures for scheduling audits and assessments; coordinating pre-assessment preparation; conducting assessments; tracking assessment findings and issues; and monitoring and closing out assessment findings. The plan formalizes the program for sharing and using information to prevent the recurrence of undesirable activities or results, and to promote the recurrence of desirable activities or results. To ensure that quality is implemented in waste characterization, certification, and management operations, quality control is incorporated into the operations-specific procedures. The majority of the information used to characterize waste is provided by:

- **NDA (gamma Spec)**
- **RP-1 (radiological dose data)**
- **C-AAC (onsite analytical and radiochemical analysis)**

The records management and document control programs at CMR are described in general in the CMR Quality Management Plan (NMTPLAN-001). Document Development and Control (CMR-AP-001) requires subject matter experts to review and approve waste management procedures. The signature pages on waste services procedures, the Document Review/ Comment form, and the Change Sheet all document that this review and approval process is being implemented. This procedure also establishes and describes the document control process that is implemented. This process ensures that only current procedures are in use and that all applicable personnel have access to the procedures.

All records generated at CMR are managed according to Records Management (CMR-AP-003). The management of records resulting from implementing the QA program at CMR are described in Controlling Nonconforming Items, Processes, Services, and Documents (CMR-AP-018).

Training and Qualification

All waste management personnel (Waste Management Coordinators [WMCs]; Environment, Safety, Health, and Quality [ESH&Q]; Environmental Tech; etc.) are required to maintain qualification standards. Describe how the organization implements any other radioactive waste management specific training required by the organization.

Response:

Qulaification standards have been identified and personnel must complete the specific tasks in the assigned training plans. WES-WGS and CMR training personnel ensures that all workers are current on their facility-specific training requirements, and sends notices out when personnel need to update their facility-specific training or take additional training. CMR-AP-014, Facility-Specific Training, describes the facility-specific training program required to ensure that all personnel are trained to perform their work activities at the CMR Facility - specific training programs ensure that all personnel are trained to perform work in a safe and secure manner. Before progressing to group-specific and activity-level training for their position and being allowed to independently perform work, personnel receive facility-specific general safety training commensurate with their work assignments. Topics include facility orientation, general operating information, general safety, hazards awareness, emergency response, authorization basis, radiation worker training, waste management and waste minimization, environmental compliance, quality management, and safeguards and security training.

For all other training (e.g., process-specific procedures), each CMR group management ensures the training is current for all workers before they perform the assigned activity. The specific training required for each worker is identified in his or her training plan. CMR-AP-016, On-the-Job Training and Evaluation, provides CMR groups with guidance to ensure a graded approach to the development, implementation, and administration of on-the-job training. CMR-PLAN-003, Training Qualification Program, provides an overview of the CMR training qualification program, which establishes mechanisms for the identification and development of training, qualification, and evaluation.

CMR procedures and documents identify the specific training, skills, knowledge, or abilities required to perform the activity described in the procedure. CMR-AP-019, Training Qualification and Certification Program, provides CMR groups with the requirements, provisions, and guidance to develop and implement a graded and systematic approach to training qualification and certification programs as specified in the appropriate policys and regulations. CMR-AP-554, Training Analysis for Procedures, describes the training analysis process used to examine the complexity of work, consequence of improper task performance, and potential risk in determining appropriate training and evaluation. This training analysis determines the necessary knowledge, skills, and appropriate training and evaluation to enable a worker to properly and safely perform work.

Waste Minimization and Pollution Prevention

Document the implementation of waste minimization and pollution prevention programs for radioactive waste management facilities, operations, and activities. Provide assurance of waste stream evaluation before generation of waste.

Response:

CMR personnel may discuss any waste elimination issues with WES-WGS personnel. ENV-RCRA has a couple of electronic mechanisms for communicating on waste issues. Personnel can send comments, observations, or questions to wastenot@lanl.gov. The message is answered by an appropriate environmental specialist and any proposed action is tracked by ENV-RCRA. The other program is WASTENOT-grams, in which the program sends weekly Emails updating personnel on the Laboratory-wide environmental programs, such as recycling information, waste elimination tips, energy and water conservation options, and green products information. Personnel are encouraged to contact wastenot@lanl.gov with questions, concerns, or ideas regarding the WASTENOT-grams.

The P2/Waste Minimization Program is an essential part of the CMR's environmental mission. The CMR P2/Waste Minimization Program reflects LANL, DOE, and national P2 goals and policies, and represents an ongoing effort to make P2/waste minimization an integral part of CMR's operating philosophy. When evaluating P2/waste minimization opportunities, CMR applies the pyramid scheme to define the most appropriate methods for preventing pollution.

The overall goal of the P2/Waste Minimization Program is to systematically integrate P2/waste minimization considerations into all planning and decision-making. The following are key elements of the P2/Waste Minimization Program:

Identifying P2 or waste minimization opportunities.

- **Eliminating or reducing wastes, effluents, and emissions at the source where possible.**
- **Ensuring that environmental effluents, emissions, and wastes are as low as reasonably achievable.**
- **Achieving or exceeding LANL/DOE waste minimization, P2, recycling, and affirmative procurement goals.**
- **Conserving natural resources and energy.**
- **Reusing and recycling materials.**
- **Procuring environmentally preferable products (also known as affirmative procurement).**
- **Complying with applicable requirements.**
- **Reducing waste management costs.**
- **Identifying funding mechanisms for evaluation and implementation of P2/waste minimization opportunities.**
- **Timely implementation of P2/waste minimization projects.**
- **Improving employee and community outreach and awareness of P2 goals, plans, and progress.**

CMR managers guide the organization by promoting pollution prevention, waste minimization, and resource conservation and recognizing and rewarding innovation and efficiency in productivity through the LANL P2 Awards, LAAP Awards, Spot Awards, and Distinguished Performance Awards.

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Nuclear & High Hazard Operations
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Paul Sasa, CMR Facility Operations Director
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505-667-2434/Fax 505-665-8729

Date: September 6, 2011
Refer To: FOD-CMR:11-022

Mr. George J. Rael, Field Element Manager
Nuclear National Security Administration
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3747 West Jemez Rd., MS A316
Los Alamos, New Mexico 87544

DOE Extension Request for Radioactive Waste Streams residing in Chemistry & Metallurgy Research (CMR) Facility

CMR Waste Operations is currently storing radioactive waste greater than the one year, in which a DOE extension approval is required in accordance with DOE O/M 435.1. WES-WGS waste management is in the process of dispositioning the last of legacy waste this fiscal year. All low level waste (LLW) reported on the 1 year storage extension will be at transported to TA-54 by September 30, 2011, with more than 110 LLW containers (B25's, B12's, fans, laser tables, etc) already shipped. By the end of FY11, CMR is on schedule to have shipped more than 20 TRU drums, 80 LLW drums and 140 LLW containers.

The LLW waste that was associated with the preceding RWMB (FOD-CMR: 11-002) has been dispositioned in FY11, which included the 6 Uranium contaminated debris drums in registered site 3000 and 8 LLW debris containers stored in registered site 3898. The waste management processing at CMR has been prioritized and will continue to improve through the closure of the facility.

The TRU waste is being addressed, more than 20 drums will be shipped before Sept 30, 2011 and the remainder is slated to be shipped within FY12. Container LA00000062000 (TRU HEPA Filter) requires to be repackaged into a WIPP approved container. The remaining items are 55 gallon TRU drums destined for WIPP and will be disposed in FY12 once WCAT approval is obtained, repackaging due to FGE quantities and/or termination of safeguards have taken place. The request for a 1 year extension is for the following TRU containers.

LA00000062000	05/05/04	64	TRU HEPA Filter
LA00000057673	03/13/08	8.5	TRU Drum
LA00000057676	05/18/10	8.5	TRU Drum
LA00000057692	05/18/10	8.5	TRU Drum
LA00000057695	04/27/09	8.5	TRU Drum
LA00000059512	04/10/08	8.5	TRU Drum
LA00000059584	08/23/03	8.5	TRU Drum

LA00000062002	04/10/08	8.5	TRU Drum
LA00000062056	05/18/10	8.5	TRU Drum
LA00000062095	04/18/08	8.5	TRU Drum
LA00000064701	04/20/10	8.5	TRU Drum
LA00000064705	02/13/09	8.5	TRU Drum
LA00000064706	03/06/09	8.5	TRU Drum
LA00000064713	12/22/09	8.5	TRU Drum
LA00000064714	09/29/09	8.5	TRU Drum
LA00000064717	04/20/10	8.5	TRU Drum
LA00000064720	04/20/10	8.5	TRU Drum
LA00000064722	06/22/10	8.5	TRU Drum
LA00000064725	01/16/10	8.5	TRU Drum
LA00000064727	08/17/10	8.5	TRU Drum
LA00000064730	04/16/10	8.5	TRU Drum

Sincerely,

Paul Sasa
CMR Facility Operations Director

Enc: CMR Radioactive Waste Management Basis, Form for 2107

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IRM-RMMSO, A150

CMR's Authorized Procedures 2012 RWMB

Document Number	Document Title	Use Category
CMR-AERI-001	Operations Center Alarm/Emergency Response Insruction	Reference
CMR-AERI-002	CMR Facility Emergency Response	Reference
CMR-AERI-003	CMR Emergency Response Operations	Reference
CMR-AERI-004	Spill Response Team Activities	Reference
CMR-AERI-005	Emergency Response Team Activities	Reference
CMR-AP-001	Perchlorate Contaminated Systems	Reference
CMR-AP-008	MC&A Plan for CMR	Use Every Time
CMR-AP-015	CMR Activity Approval	Reference
CMR-AP-023	CMR Facility Material-at-Risk Movements	Use Every Time
CMR-AP-028	Radiation Protection Program	Reference
CMR-AP-029	Configuration Management	Reference
CMR-AP-030	CMR Quality Program	Reference
CMR-AP-045	Integrated Work Management for Work Activities	Reference
CMR-AP-048	CMR Work Management Process and Maintenance Program	Reference
CMR-AP-072	CMR Conduct of Operations	Reference
CMR-AP-086	Hazardous Materials Protection Program	Reference
CMR-AP-087	Glovebox Glove Integrity Program	Reference
CMR-AP-088	CMR Records Management	Reference
CMR-AP-093	Waste Staging and Storage	Reference
CMR-AP-522	CMR Nuclear Criticality Safety	Reference
CMR-AP-555	As Low As Reasonably Achievable Program	Reference
CMR-ASI-050	RCRA Storage Area Inspection	Use Every Time
CMR-ASI-080	Visual Inspection of Nuclear Material Containers (NMC) Filters In CMR	Use Every Time
CMR-CHTR-001	CMR Facility Steering Committee Charter	Reference
CMR-CHTR-002	CMR Nuclear Criticality Safety Committee Charter	Reference
CMR-CHTR-007	ALARA/Radiation Safety Committee Charter	Reference
CMR-NMT-MAN-003	Conduct of Operations	Reference
CMR-NMT-MAN-004	Environmental Management System Manual	Reference

CMR-NMT-NOTICE-019	Implementation of Six Tools for Excellent Human Performance	Reference
CMR-NMT-NOTICE-022	Implementation of NMT-RD-003 for Packaging Radioactive Materials	Reference
CMR-NOTICE-018	Mandatory Action for Remediation/Disposal of In-Use Nuclear Material Container Lids Nonconforming Filters	Reference
CMR-NOTICE-019	Ordering, Receipt, Delivery, and ChemLog Database Management of Gas Cylinders in the CMR Facility	Reference
CMR-NOTICE-023	MASS Referenced within CMR Documents is Changed to Institutionally Approved Nuclear Material Inventory System	Reference
CMR-NMT-PLAN-555	Radiation Protection Program Plan	Reference
CMR-PLAN-035	CMR Controlled Storage Plan	Reference
CMR-RD-007	Waste Management Requirement	Reference
CMR-RD-008	CMR Facility Chemical Management Requirement	Reference
CMR-RD-555	CMR Facility Radiation Protection Requirement	Reference
CMR-SDS-003	Duct Wash Down	Reference
CMR-SDS-008	Industrial Liquid Waste	Reference
CMR-SDS-009	Irrigation	Reference
CMR-SDS-013	Non-Potable Water (NWP)	Reference
CMR-SDS-016	Potable Water (PW)	Reference
CMR-SDS-018	Sanitary Waste (SAN)	Reference
CMR-SDS-019	Steam System (STM)	Reference
CMR-SO-089	CMR Administrative Reduction of Facility MAR Limit	Reference
CMR-TSR-201	Material-At-Risk Inventory Verification	Use Every Time
CMR-TSR-306	Combustible Loading Inspection	Use Every Time
CMR-TSR-501	Flammable Gas Source Inspection	Use Every Time
CMR-WI-022	Accessing and Performing Work on the CMR Facility Roof	Reference
CMR-WI-025	Packing and Unpacking Nuclear Material Shipments at CMR	Use Every Time
CMR-WI-040	CMR Radiological Monitoring	Reference
CMR-WI-051	Satellite Accumulation Areas	Reference
CMR-WI-052	<90-Day Storage Areas	Reference
CMR-WI-053	Universal Waste Area	Reference

CMR-WI-054	Treatment, Storage, and Disposal Areas	Reference
CMR-WI-055	Polychlorinated Biphenyl Waste Storage Area	Reference
CMR-WI-056	Asbestos Waste Storage Area	Reference
CMR-WI-057	Unknown Waste	Reference
CMR-WI-058	Sampling Unknown Waste, Returning Samples and Recombining and Repackaging Samples and Waste	Use Every Time
CMR-WI-061	Sorting, Segregating, and Repackaging Waste Containers	Reference
CMR-WI-062	Visual Waste Inspections and Storage of Radioactive Waste	Use Every Time
CMR-WI-063	Preparation, Packaging, and Disposal of Sanitary, Recycle, and Salvage Materials from CMR	Reference
CMR-WI-064	Inspection and Preparation of Waste Containers	Use Every Time
CMR-WI-065	Packaging Radioactive Waste	Reference
CMR-WI-066	Data Package Preparation for Radioactive Waste	Use Every Time
CMR-WI-070	Fluorescent Lamp Crushing	Use Every Time
CMR-WI-080	CMR Nuclear Material Physical Inventory	Use Every Time
CMR-WI-081	CMR Nuclear Material Inventory Adjustment Evaluation & Review	Use Every Time
CMR-WI-082	Packing and Unpacking of the RD26 at CMR	Use Every Time
CMR-WI-084	CMR Wing 9 Manipulator Boot Seal Replacement	Use Every Time
CMR-WI-085	Replacing Batteries in PLCs	Use Every Time
CMR-IWD-004	Operations and Calibration of the Ortec Gamma Spectroscopy Systems	Reference
CMR-IWD-005	Operating the X-Ray Imaging System	Reference
CMR-IWD-008	RCRA and TSCA Waste Storage and Disposal	
CMR-IWD-009	Processing Radioactive Waste, Salvageable or Recycled Material or Debris at CMR	
CMR-IWD-010	Mechanical Lifting Operations	
CMR-IWD-012	CMR General Facility Operations	Reference
CMR-IWD-013	Planning and Conducting Drills and Exercises at CMR	Use Every Time
CMR-IWD-014	Coordination and Documentation of TRU and Low Level Waste from CMR	
CMR-IWD-015	Emergency Response Team Activities	

CMR-IWD-016	Radioactive Source Control
CMR-IWD-017	Drum Hauler & Drum Walkie Operating Instructions
CMR-IWD-019	Installing Sol'n Cartridges in Portable Eyewash Station in NDA Lab
CMR-IWD-020	Intrusive Electrical Work
CMR-IWD-021	Operating the NDA Laboratory Tomographic Gamma Scanner (TGS)
CMR-IWD-022	Operating the Steam System in CMR
CMR-IWD-023	Container & Document Preparation, Waste & Storage Area Inspections
CMR-IWD-026	Repair Refrigerant Unit in Wing 7
CMR-IWD-ASI-019	Eyewash Station and Safety Shower Inspect.
CMR-IWD-WI-070	Fluorescent Bulb Crushing
CMR-IWD-WI-079	Operation of the CMR Work Assist Vehicle (WAVE)